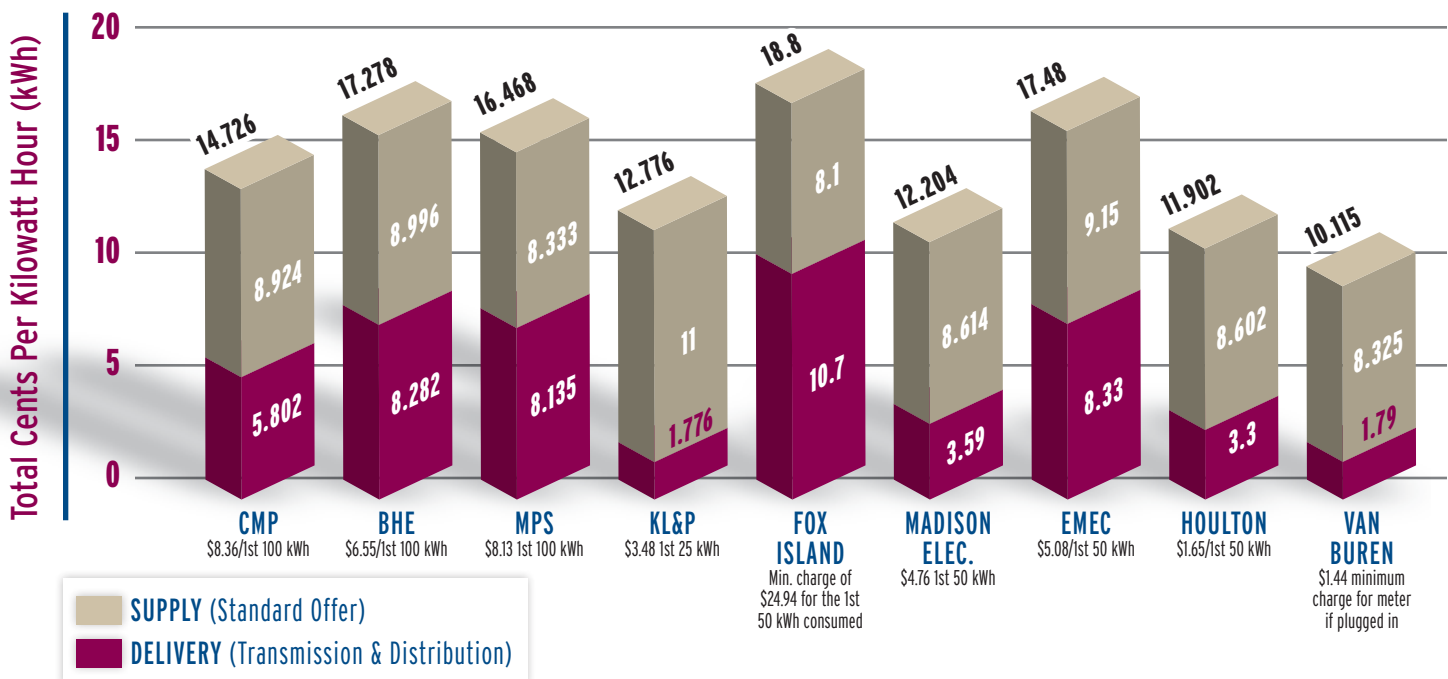


# Electricity Guide

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## CURRENT RESIDENTIAL TOTAL kWh RATES



## TRANSMISSION, TRANSMISSION, TRANSMISSION

THE PUBLIC ADVOCATE IS BUSY with two transmission cases pending before the Public Utilities Commission. One is CMP's "Maine Power Reliability Program" (MPRP), and the other is Bangor Hydro's "Downeast Reliability Project" (DRP). In order to receive a Certificate of Public Convenience and Necessity (CPCN), each utility must prove to the Commission that its project is needed. Each project has received approvals from ISO-New England, and the cost of each will very likely be "socialized" throughout New England.

**MPRP** CMP's controversial MPRP proposal, if approved, would result in 350 miles of new power lines, three new substations, several expanded substations and many other additions to CMP's current bulk power facilities. It would be the largest utility investment in state history. The estimated cost is \$1.5 billion. If "socialized" throughout New England — a likely outcome — CMP ratepayers would pay a little over 8% of the cost. Since the case was filed a year ago, ninety-five parties have intervened, including power generation owners, environ-

mental organizations, municipalities and many people whose land is next to where new lines are proposed to be sited. There have been many "technical conferences," two public hearings and many reports and other filings at the Commission.

CMP asserts that the MPRP is needed to assure the continued reliability of its bulk power system and that without it, we could be exposed to widespread blackouts during times of peak usage, typically hot summer afternoons. We have hired consultants to help us analyze the need for the

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MPRP, both from an engineering viewpoint and by examining whether there are alternatives to power lines such as demand response or energy efficiency programs to reduce usage. In January, our consultants filed testimony that said CMP's (and ISO-NE's) interpretation of the mandatory planning standards were too stringent and therefore that the Company has not proven a need for the MPRP. Since then, the Commission has required the Company to study the system using less stringent standards. At this time, the question of need remains to be decided and it is difficult to predict when the case will be resolved.

Last winter, a new company called GridSolar filed testimony saying that the needs addressed by the MPRP are better met by deploying solar photovoltaic (PV) arrays throughout CMP's territory. GridSolar reasons that the sun is usually present on the hot summer peak days and that PV can thus meet the needs of the CMP system. This filing raises many issues, but GridSolar remains active in this case.

**DRP** Bangor Hydro's proposal is to build a 36-mile-long power line between the Ellsworth and Harrington areas. It is aimed at reinforcing that part of its transmission system that feeds power to the downeast portion of its system. Much of the current system is very old and is "radial" meaning that when there is a fault on part of the line, the whole line goes down because power cannot come from other sources. Bangor Hydro estimates that its proposed project would cost \$67.9 million, only 2.7% of which its customers would pay if it is "socialized" throughout New England. Using the expert advice of an engineer we hired to review Bangor's filing, we have agreed that there is a need for this line. We expect that there is a good likelihood that the Commission will approve this line this fall.

## BULK POWER SYSTEM

The bulk power system, sometimes referred to as the "backbone" of the electric grid, is defined as wires and substations that run at 115kV (1 kV = one thousand volts) or 345kV. These lines do not run along roads and streets but have their own dedicated cross-country rights of way. This system feeds into the many substations where power is stepped down to lower voltages for distribution to customers. Rates for the bulk power system are controlled by the Federal Energy Regulatory Commission (FERC) in Washington. Rates for the lower voltage system are controlled by the Maine PUC. The 115kV lines are generally on 80-90 foot poles, and the 345kV lines are on the larger structures, either lattice steel or wooden H-frame. CMP's current bulk power facilities were built in 1970, in connection with the construction of the Maine Yankee nuclear plant.

## NECESSARY INCENTIVES?

Transmission projects proposed for reliability purposes, such as the MPRP and the DRP, qualify for an incentive rate from the Federal Energy Regulatory Commission (FERC). This is in the form of an "adder" to the FERC-approved return on equity for the utility. For the MPRP, if built as proposed, this adder will result in an additional \$10 million per year in earnings for CMP's shareholder (Iberdrola, a Spanish utility). Ratepayers pay for this in rates. When asked if CMP would be proposing the MPRP in the absence of this incentive adder, Sara Burns, CMP's president, said yes.

Why is this allowed and what is the cause? In August 2003, there was a major blackout stretching from Ohio north into Canada and east as far as New York. Maine, and most of New England, was unaffected. The Energy Policy Act of 2005, enacted in the wake of the blackout, directed FERC to create incentives for new transmission investment. However, a joint US/Canadian task force that examined the cause of the blackout did not recommend increased investment in transmission. In fact, the report determined that two primary causes were operator inattention and inadequate tree-trimming on the part of First Energy, an Ohio utility. No one can explain how all the extra money being taken from ratepayers and given to shareholders in the form of this incentive adder will ensure against this! It is ironic, of course, that the people responsible for the blackout, and their counterparts throughout the country, are being unduly enriched as a result. If you agree that this adder is unjustifiable, you should contact your US Senator or Representative.

## METERS

In the last issue of the *Electricity Guide*, we reported on CMP's proposal to install smart meters at every customer location. Its proposal was to roll out Advanced Metering Infrastructure (AMI) at a cost of \$96 million. AMI systems are designed to measure and report (to a central computer) each customer's usage in small time increments, like every fifteen minutes. They also assist the utility in responding to outages and other service requests. CMP remains interested in this project and is currently seeking federal stimulus money allotted to "smart grid" programs. In theory, these meters can be used to bring down costs by helping customers use less power during those times of the year when power is the most expensive, like hot summer days.

If and when AMI comes to Maine, we see good news and bad news. The good news is that people will be motivated to use electricity efficiently, which can lower bills, and cut down on emissions and greenhouse gases. In fact if enough people cut down usage during the peak hours of the year, we would see the cost of generation and transmission go down. However, in this complicated world,

## METERS CONT'D

electricity service remains uncomplicated. Smart meters could change this, forcing customers to pay much more attention to their daily habits, cut back in high priced hours, or pay much higher rates if they don't. There are customers who may not be able to cut back on their usage. What about an individual on a fixed income with a medical condition that requires the constant use of an electrical device (like an oxygen concentrator)?

We know that many of Maine's electricity customers want to know more about how best to use electricity and how best to cut down on costs. We believe that pricing programs (called "dynamic pricing programs" — see below) used in connection with smart meters should be available to these people. We have grave concerns, however, for those customers who do not want the cost and complications brought on by smart meters.

We will continue to work with CMP and the staff of the PUC to seek common ground on these questions. We remain skeptical about smart meters and the smart grid, mostly because of the enormous cost compared to the still un-proven benefits.

## DYNAMIC PRICING PROGRAMS A CARROT OR A STICK?

There are two generic dynamic pricing programs, with many variations. Both depend on an AMI system like those proposed by CMP and Bangor Hydro. One, called Critical Peak Pricing, would price electricity at a very high rate for those few hours of the year (hot summer afternoons) when the grid is most stressed. Customers would be charged this high rate for all usage during these periods and would thus be motivated to cut back. The other program is sometimes called Peak Time Rebate and would reward — with a rebate — those customers who cut back during the peak hours. For those customers who forget or cannot cut back, the Critical Peak Pricing program is punishment (the stick), while the Peak Time Rebate program is merely a lost opportunity (the carrot).

## Bangor Hydro's Smart Meters

Bangor Hydro has already installed smart meters for the bulk of its customers and is now seeking to do so for the remainder. Its meter system is called Advanced Meter Reading (AMR). AMR systems lack the central computer necessary to support dynamic pricing programs, but Bangor is seeking to install that as well. To do this, it is seeking stimulus grants just the same as CMP.

# ASSISTANCE PROGRAMS

If you cannot afford to heat your home, or have trouble paying electric bills, you may be eligible for assistance through various programs.

Programs administered through Maine's Community Action Programs:

- **Low Income Home Energy Assistance Program (LIHEAP)** Qualified households receive assistance for heating costs. The programs are not intended to pay for all heating costs, but to assist in paying heating bills.
- **Low Income Assistance Program (LIAP)** This is a program that helps low-income households with their electric bills. Your Community Action Program agency accepts customer applications for LIAP as part of the LIHEAP application.
- **Energy Crisis Intervention Program (ECIP)** This program is administered

through LIHEAP and provides emergency assistance to eligible participants who are in an "emergency" situation, e.g. they have run out of fuel or have received an electrical shut-off notice.

- **Weatherization and Central Heating Improvement Program (CHIP)** This provides grants to low-income homeowners to improve energy efficiency and perform energy related repairs.
- **Appliance Replacement Program** This program is designed to help low-income households reduce their energy costs through replacement of older refrigerators and other home appliances that are inefficient and therefore more expensive to operate. The program also provides for light bulb replacement.
- **Home Energy Loan Program (HELP)** This program provides very low inter-

est rates to low and moderate income homeowners to finance improvements to make their homes more energy efficient.

For specific information regarding your eligibility and how to apply, please contact your local Community Action Program listed below:

**Aroostook County Action Program, Inc. (ACAP)**  
207-764-3721 [www.acap-me.org](http://www.acap-me.org)

**Coastal Economic Development (CED)**  
207-442-7963

**Community Concepts, Inc. (CCI)**  
207-743-7716  
[www.community-concepts.org](http://www.community-concepts.org)

**Kennebec Valley Community Action (KVCA)**  
207-859-1500 [www.kvcap.org](http://www.kvcap.org)

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**Penquis Community Action Program**  
207-973-3500 [www.penquiscap.org](http://www.penquiscap.org)

**People's Regional Opportunity Program (PROP)**  
207-874-1140 [www.propeople.org](http://www.propeople.org)

**York County Community Action Corp. (YCCAC)**  
207-324-5762 [www.yccac.org](http://www.yccac.org)

**Washington Hancock Community Agency (WHCA)**  
207-546-7544 [www.whcacap.org](http://www.whcacap.org)

**Waldo Community Action Partners**  
207-338-6809 [www.waldocap.org](http://www.waldocap.org)

**Western Maine Community Action, Inc. (WMCA)**  
207-645-4287 [www.wmca.org](http://www.wmca.org)

### OTHER PROGRAMS:

**CMP's Bundle Up Program** This program is administered by Central Maine Power Company (CMP). If you are income eligible and use an electric hot water heater, a CMP contractor will come to your home and install insulation wrap over your electric hot water heater. CMP may also install pipe insulation and an energy efficient shower head. Contact CMP at 800-750-4000.

**General Assistance** General Assistance is available through the city or town you live in. Assistance may be available to you for your current heating

bill. Customers, if eligible, can apply every month. Contact your city or town office to make an appointment for information about this program.

### Emergency Assistance (Family Crisis)

This program is a service limited to families with children under the age of 18. One of the program's functions is to assist families in paying their past due energy-related costs in order to avoid being shut-off. It is mandatory that you include a copy of the utility shut-off notice along with the application. Contact the Department of Health and Human Services in your service area for more information on this program.

**Other** Contact charitable or faith based organizations in your area for other possible assistance, e.g. Salvation Army, United Way.

### NUMBERS TO CALL FOR ADDITIONAL INFORMATION:

**211 Maine** 2-1-1 is an easy to remember telephone number that connects people in need with the community resources available to help meet those needs.

**Consumer Home Heating Rights**  
Attorney General 207-626-8800

**Electrical Disconnection** Public Utilities Commission (Consumer Assistance Division) 800-452-4699

## WHAT IS ISO-NE?

ISO New England is a federally-regulated non-profit utility that manages the day-to-day operation of a) the bulk power grid, and b) the wholesale electricity market in the six New England states. It thus plays a very important role in maintaining reliability and in setting the market price for power. It also conducts long range planning for the system. It is located in Holyoke, MA, has a budget of \$127 million and about 400 employees. CMP and Bangor Hydro have each signed contracts that make them, and thus their ratepayers, members of ISO-NE. (Northern Maine is not in ISO-NE.)

## COMMISSION RULES THAT MAINE UTILITIES MAY REMAIN IN ISO-NE FOR TWO MORE YEARS

**I**N JUNE 2009, the Maine Public Utilities Commission issued its final order in the case that examined whether Central Maine Power and Bangor Hydro Electric Company should remain members in ISO New England (ISO-NE). After two years of exhaustive investigations, the Commission concluded that the Maine utilities should stay in ISO-NE for at least two more years, beginning in February of 2010. Our office supported the Commission's conclusion.

Because of federal requirements, alternatives to ISO-NE are limited. The Commission explored whether Maine could set up its own System Operator, or whether Maine could join with New Brunswick and the Maritimes. The Commission concluded that those alternatives were either not viable or did not result in significant cost savings. The Commission stated that to meet Maine's energy vision of integrating new renewable power resources, Maine needs

sophisticated, competitive electricity markets such as the one administered by ISO-NE. The Commission also stressed the importance of remaining within the ISO-NE in order to participate in a concerted and cohesive regional response required to thwart the growing federal action aimed at bringing vast quantities of expensive Midwest wind power to the east.

In its ruling, the Commission emphasized that its decision should not be interpreted as a signal that efforts at reform at ISO-NE have come to an end. The Commission expects the utilities to remain actively involved in pursuing the reforms set forth by the Commission in its earlier order in the case. Those reforms include governance, transmission cost allocation and transmission cost containment. The Commission directed its staff to work with Maine stakeholders to actively pursue the desired reforms.



# THE REGIONAL GREENHOUSE GAS INITIATIVE

## A CAP AND TRADE PROGRAM ALREADY UNDER WAY

**T**HE RECENT APPROVAL by a Congressional committee of a bill to deal with climate change, which included a so-called “cap and trade” program, produced positive comments from renewable energy and environmental advocates, but warnings by opponents that the legislation will do serious harm to the US economy.

It is too early to know whether the Congress will act, or what might be included if a bill is approved, but there is a model the Congress would do well to examine, in the form of an existing “cap and trade” program already operating in a ten-state area from Maine to Maryland. The evidence so far is that this Regional Greenhouse Gas Initiative (or RGGI) has had minimal effects on the cost of electricity in this region while generating substantial new financial resources that are being invested in making our consumption of electricity much more efficient... so we need to use less while getting the same benefits from its use. “Cap and trade” is an administrative approach used to control pollution by providing economic incentives for achieving reductions in the emissions of pollutants and then letting “the marketplace” work. Here’s how the RGGI cap and trade program works:

The ten RGGI states set a limit or cap on the amount of carbon dioxide that can be emitted by each “covered” large fossil-fueled electric generator in each of the member states. The generators must purchase emission allowances from quarterly region-wide allowance auctions and are required to

hold enough of these allowances (or credits) to equal the amounts of emissions from their generators. The total amount of allowances and credits cannot exceed the cap, limiting total emissions to that level. After a three year “baseline” period, the number of allowances available in the quarterly auctions will be reduced by 1% in each succeeding year. This forces the generators to reduce their emissions or pay more for the additional allowances they need. Companies that need to increase their emission allowance must buy credits from those who pollute less. The transfer of allowances is referred to as a trade, and the auction provides an open, transparent means of setting a value on the allowances. In effect, the buyer is paying a charge for polluting, while the seller is being rewarded for having reduced emissions by more than was needed. Thus, in theory, those who can easily reduce emissions most cheaply will do so, achieving the pollution reduction at the lowest possible cost to society. This theory has been proven through the existing, and highly successful process for reducing sulfur dioxide (SO<sub>2</sub>) — acid rain — emissions.

The proceeds from the quarterly auctions of allowances (or credits) are allocated by the member states to energy efficiency and CO<sub>2</sub> reduction measures within each of the states. In Maine we have received nearly \$12 million dollars from the first four quarterly auctions, and as the auction price for allowances rises (to \$3.51 in the June 2009 auction), Maine’s proceeds will also rise to an expected \$15 to \$18 million annually. The proceeds are managed by a Trust which uses the funds to pay for energy efficiency and CO<sub>2</sub> reduction measures which provide the greatest benefit per dollar of Trust funds used.

The 10 RGGI states (the six New England states, plus New York, New Jersey, Maryland and Delaware) are just completing the first year of the RGGI program, and the preliminary evidence suggests that the RGGI effort may be producing greater reductions in the output of CO<sub>2</sub> and other greenhouse gases than originally expected. The first “true-up” period will occur at the end of the third year when generators will need to prove they hold sufficient “allowances” to cover any CO<sub>2</sub> emissions in excess of their individual “cap.”

The Office of the Public Advocate is responsible for periodically evaluating the effect of the RGGI “cap and trade” program on the cost of electricity used by Maine people. As of now we have no evidence that “Cap and Trade” has resulted in any increase in the supply portion of anyone’s electric bill.



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**Standing (left to right): Dick, Eric, Bill, Mary, Agnes;  
Seated (left to right): Patty, Wayne, Debbie**

How clean is the electricity we use? If you are interested in knowing how Maine's usage compares to the national average, go to this website and put in your zip code. While we pay some of the highest rates in the country, at least we have the benefit of lower local emissions:

[www.epa.gov/cleanenergy/energy-and-you/how-clean.html](http://www.epa.gov/cleanenergy/energy-and-you/how-clean.html)